

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	Apache Corporation	Contact	Bruce Baker
Address	PO Box 1849, Eunice NM 88231	Telephone No.	(432) 631-6982
Facility Name	WBDU #106	Facility Type	Production Well
Surface Owner	Deck	Mineral Owner	State
		API No.	30-025-39407

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	8	21S	37E	2310	FSL	2310	FEL	Lea

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release	Oil	Volume of Release	25 bbls	Volume Recovered	20 bbls
Source of Release	BOP Failure	Date and Hour of Occurrence	5/8/11	Date and Hour of Discovery	5/8/11
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Leking		
By Whom?	Natalie Gladden	Date and Hour	5/9/11 1:13 pm		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

DTW=75'

Describe Cause of Problem and Remedial Action Taken.*

BOP failed to hold, releasing fluid. Fluid was recovered and one-call was made.

Describe Area Affected and Cleanup Action Taken.*

The caliche pad surrounding the well head and a small area of pasture to the south of the pad was affected by the leak. The entire impacted area was excavated to 2 ft. below ground surface. Samples were collected, field tested, and sent to a commercial laboratory for chloride, TPH, and BTEX analyses. Impacted soils were removed to a NMOCD approved disposal facility. The pad excavation was backfilled with clean imported caliche and leveled. The pasture excavation was backfilled with clean imported soil and contoured to the surrounding area.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	<i>Bruce Baker</i>	OIL CONSERVATION DIVISION	
Printed Name:	Bruce Baker	Approved by District Supervisor: <i>Larry Baker</i> Environmental Specialist	
Title:	Environmental Tech	Approval Date:	8/30/13
E-mail Address:	larry.baker@apachecorp.com	Expiration Date:	—
Date:	8-30-13	Conditions of Approval:	—
Phone:	(432) 631-6982	Attached	<input type="checkbox"/>
		IRP-06-14-3085	

* Attach Additional Sheets If Necessary

JUN 17 2014

NSAD 1416.442035



EXPLORING WHAT'S POSSIBLE

HOBBS OCD

FEB 06 2014

RECEIVED

APACHE CORPORATION

P.O.Box 1849
Eunice, NM 88231
Phone 575.394.3159

WBDU #106

Closure Report

API 30-025-39407

Release Date: May 8, 2011

Unit Letter J, Section 8, Township 21S, Range 37E

Rice Environmental Consulting & Safety

P.O. Box 5630 Hobbs, NM 88241

Phone 575.393.4411 Fax 575.393.0293

June 4th, 2013

Geoffrey Leking

New Mexico Energy, Minerals, & Natural Resources

Oil Conservation Division, Environmental Bureau – District 1

1625 N. French Dr.

Hobbs, NM 88240-9273

RE: TERMINATION REQUEST

Apache – WBDU #106 AD

UL/J Sec. 8 T21S R37E

API No. 30-025-39407

Mr. Leking:

Apache Corporation has retained Rice Environmental Consulting and Safety (RECS) to address potential environmental concerns at the site referenced above.

Background and Previous Work

The site is an accidental discharge of hydrocarbon fluids associated with the WBDU #106 well when a blow out preventer failed. Fluids affected the well pad and pasture area south of the well pad. The unit was repaired and fluids were recovered. An initial form C-141 was submitted by Apache Corporation on May 12, 2011 (Appendix A). The site is located northwest of Eunice in unit letter 'J' of section 8, T21S, R37E in Lea County, New Mexico. According to the NM Office of the State Engineer and the U.S. Geological Survey, ground water in the area is approximately 80 ft. bgs

On May 9, 2011, well servicing equipment remained at the WBDU #106 well head preventing sampling of the caliche pad. However, RECS personnel initiated work on the impacted pasture area located south of the caliche pad. Soil samples were field tested for chloride, and headspace measurements were also taken in the field using a Photo Ionization Detector (PID).

The impacted pasture area was excavated to a depth of 2 ft below ground surface (bgs) and covered a lateral area of approximately 1,400 ft² (Figure 1). Representative grab samples were taken from the excavation walls, and a representative composite sample was taken from the excavation floor. The samples were submitted to a commercial laboratory for chloride, TPH, and BTEX analyses (Appendix C). Chloride did not exceed 64 mg/kg. The North Wall adjacent to the undisturbed caliche pad impact area contained 111 mg/kg DRO. Remaining samples contained a maximum of 20.9 mg/kg DRO. Benzene, Toluene, and Ethyl-benzene were less than 0.050 mg/kg and Total Xylenes were less than 0.150 mg/kg.

On May 12, 2011, RECS personnel initiated work at the impacted area on the caliche pad (Figure 2). Soil samples were collected and similarly field tested. The impacted area was excavated to a

depth of 2 ft bgs and covered a lateral area of approximately 8,205 ft² (Figure). Representative grab samples were taken from the east and west excavation walls, and a representative composite sample was taken from the excavation floor. The samples were submitted to a laboratory for analyses. Chloride did not exceed 64 mg/kg. TPH were less than 10 mg/kg. Benzene, Toluene, and Ethyl-benzene were each 0.057 mg/kg or less, and Total Xylenes were 0.154 mg/kg or less.

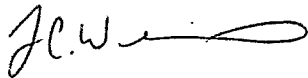
Impacted soils were removed from the excavations and transported to a NMOCD approved disposal facility. The edge of the impacted area north of the well head was not excavated due to the proximity of equipment and the well head itself. The caliche pad excavation was backfilled with imported caliche and leveled. The pasture area excavation was backfilled with imported topsoil and contoured to the surrounding area. See Appendix B for photographs of field activities.

Conclusion

Due to the removal of impacted soils and mitigation of the downward migration of any remaining chloride, Apache submits the final C-141 (Appendix D) and respectfully requests the closure of the regulatory file for this site.

Apache Corporation appreciates the opportunity to work with you on this project. Please Hack Conder at (575) 631-6432 if you have any questions or comments.

Sincerely,



Lara Weinheimer
Project Scientist
RECS
(575) 441-0431

Attachments:

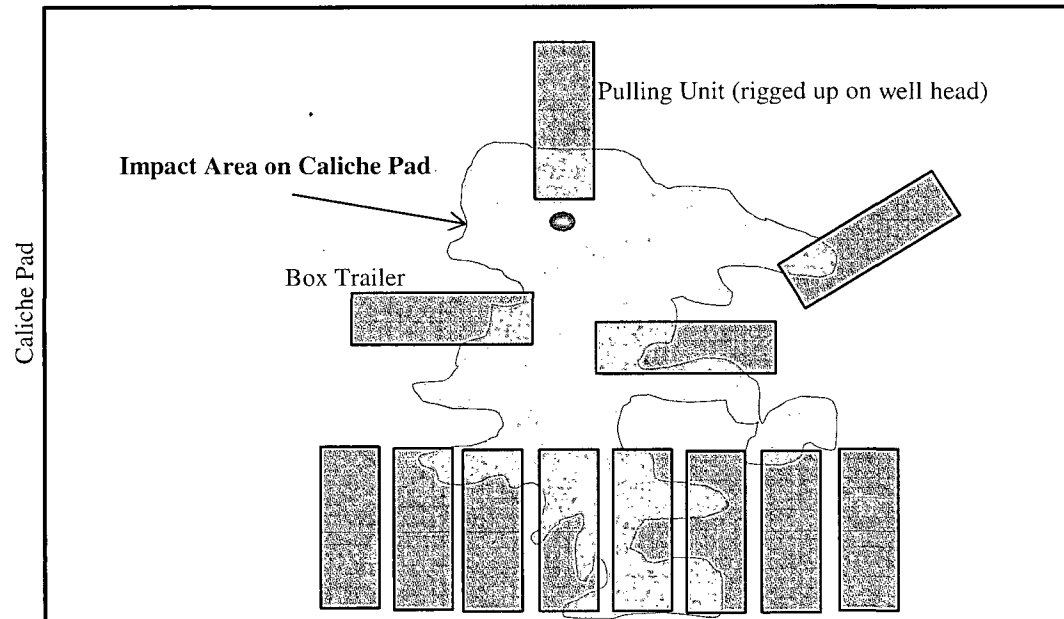
- Figure 1: Pasture Excavation
- Figure 2: Pad Excavation
- Appendix A: Initial Form C-141
- Appendix B: Site Photographs
- Appendix C: Laboratory Results
- Appendix D: Final Form C-141

Figures

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

WBDU #106 AD

UL/J, Sec 8, T21S R37E



Impact Area in Pasture
Excavation 2 ft bgs and 1,400 sq ft

Sample ID	Lab Cl-	GRO	DRO	B	T	E	X
S Exc S Wall	32	<10	20.9	0.050	0.050	0.050	0.150
S Exc N Wall	32	<10	111	0.050	0.050	0.050	0.150
S Exc E Wall	64	<10	15.9	0.050	0.050	0.050	0.150
S Exc W Wall	32	<10	13.4	0.050	0.050	0.050	0.150
S Exc Btm Comp	64	<10	10.9	0.050	0.050	0.050	0.150

Figure 1

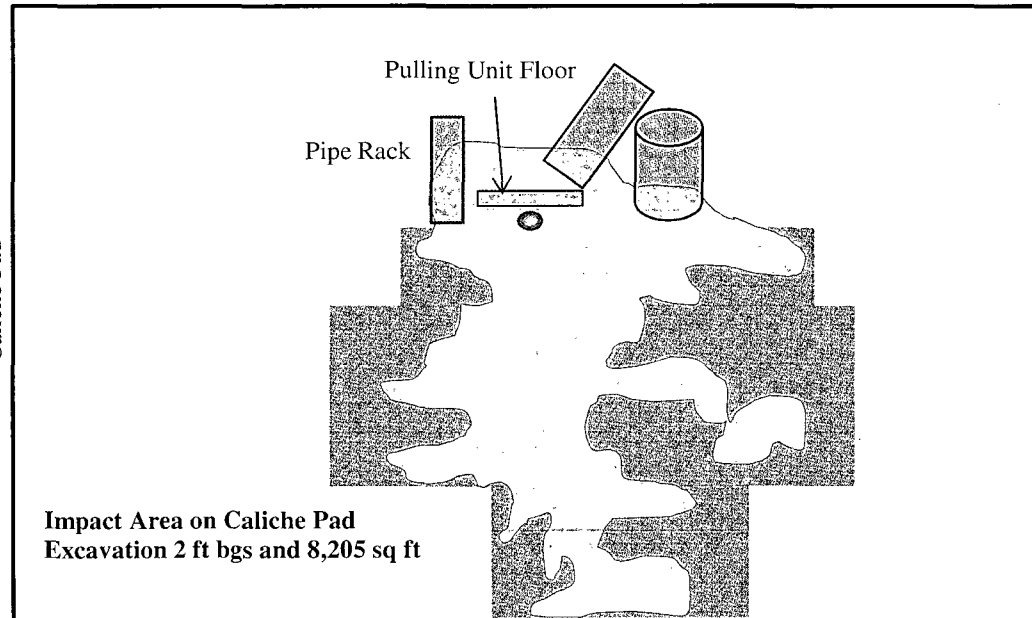
Key	
	Well head
	Initial Release
	Excavated Area(s)
	Tanks
	Equipment

WBDU #106 AD

UL/J, Sec 8, T21S R37E

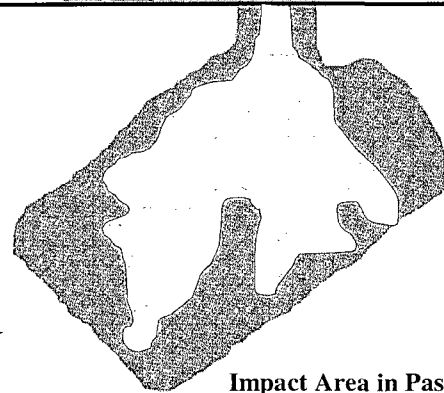


Caliche Pad



Impact Area on Caliche Pad
Excavation 2 ft bgs and 8,205 sq ft

Sample ID	Lab CI-	GRO	DRO	B	T	E	X
E Wall Exc on Pad	<16	<10	<10	0.050	0.050	0.050	0.150
W Wall Exc on Pad	<16	<10	<10	0.050	0.057	0.057	0.154
4 Pt. Btm Comp	48	<10	<10	0.050	0.050	0.050	0.150



Impact Area in Pasture
Excavation 2 ft bgs and 1,400 sq ft

Figure 2

Key	
	Well head
	Initial Release
	Excavated Area(s)
	Tanks
	Equipment

Appendix A

Initial C-141

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Apache Corporation	Contact Natalie Gladden	
Address PO Box 1849, Eunice NM	Telephone No. 575-390-4186	
Facility Name WBDU #106	Facility Type Production Well	
Surface Owner Deck	Mineral Owner State of NM	API No. 30-025-39407

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	8	21S	37E	2310	FSL	2310	FEL	Lea

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release Oil	Volume of Release 25	Volume Recovered 20
Source of Release BOP Failure	Date and Hour of Occurrence 5/8/11	Date and Hour of Discovery 5/8/11
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Leking	
By Whom? Natalie Gladden	Date and Hour 5/9/11 at 113pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

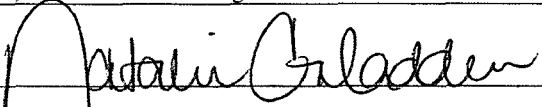
Describe Cause of Problem and Remedial Action Taken.*

BOP failed to hold, releasing fluid. Fluid was recovered and one-call was made.

Describe Area Affected and Cleanup Action Taken.*

NMOCD guidelines will be followed to closure.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Natalie Gladden	Approved by Environmental Specialist:	
Title: EHS Environmental Tech	Approval Date:	Expiration Date:
E-mail Address: natalie.gladden@apachecorp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 5/12/11 Phone: 575-390-4186		

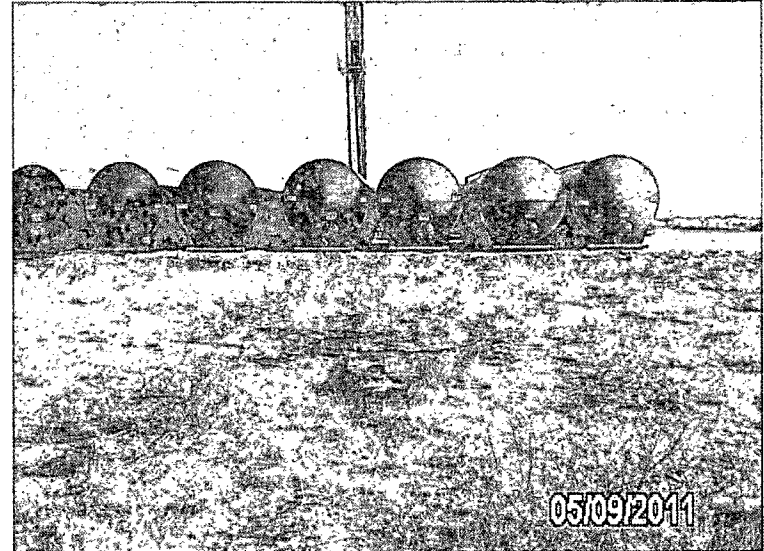
* Attach Additional Sheets If Necessary

Appendix B

Site Photographs

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

WBDU #106 AD
Unit J, Section 8, T21S, R37E



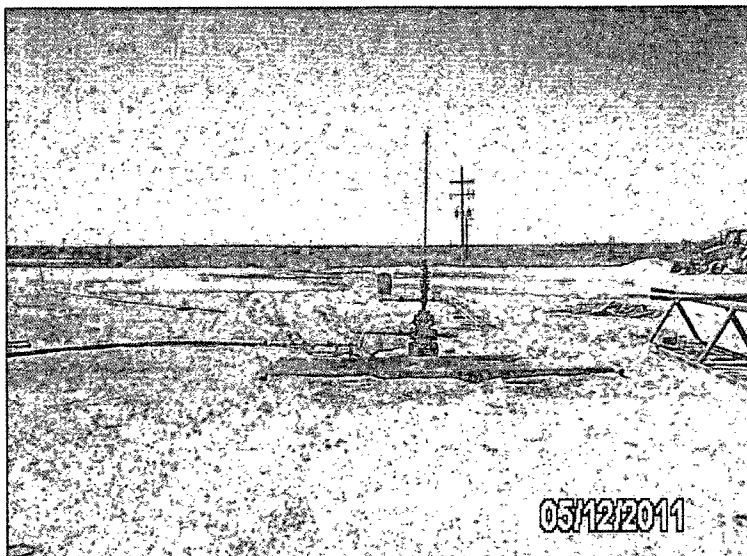
Initial release in pasture, facing north 5/9/2011



Initial release in pasture, facing south 5/9/2011



Pasture excavation complete, facing north 5/9/2011



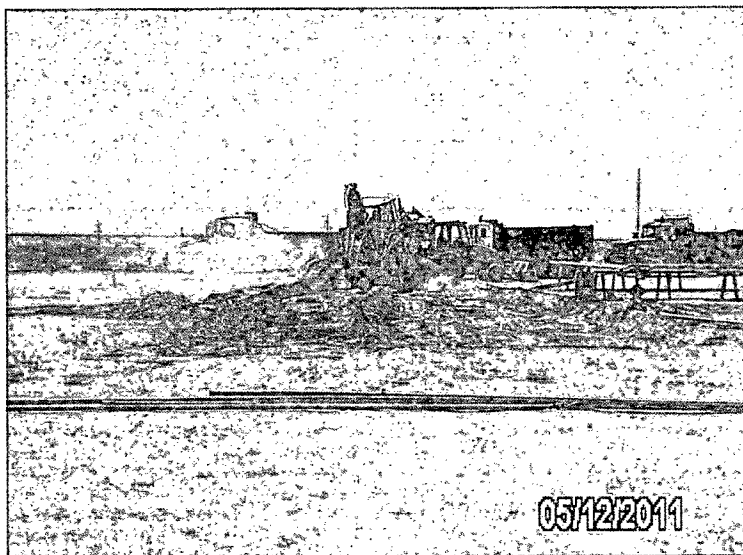
Initial release on pad, facing west

5/12/2011



Initial release on pad, facing north

5/12/2011



Excavating pad, facing west

5/12/2011



Exporting soil, facing south

5/12/2011

Appendix C

Laboratory Results

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

May 13, 2011

NATALIE GLADDEN

APACHE - EUNICE

P. O. BOX 1849

EUNICE, NM 88231

RE: APACHE WEBDU #106

Enclosed are the results of analyses for samples received by the laboratory on 05/09/11 16:05.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received: 05/09/2011
Reported: 05/13/2011
Project Name: APACHE WEBDU #106
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 05/09/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S EXC OFF PAD S WALL (H100935-01)

BTEx 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/11/2011	ND	1.97	98.7	2.00	2.34	
Toluene*	<0.050	0.050	05/11/2011	ND	1.99	99.6	2.00	2.26	
Ethylbenzene*	<0.050	0.050	05/11/2011	ND	2.00	100	2.00	1.50	
Total Xylenes*	<0.150	0.150	05/11/2011	ND	5.98	99.6	6.00	1.71	

Surrogate: 4-Bromofluorobenzene (PIL) 93.1 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	05/11/2011	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/12/2011	ND	173	86.3	200	0.975	
DRO >C10-C28	20.9	10.0	05/12/2011	ND	198	98.9	200	0.901	

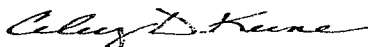
Surrogate: 1-Chlorooctane 82.6 % 70-130

Surrogate: 1-Chlorooctadecane 84.3 % 70-130

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received: 05/09/2011
Reported: 05/13/2011
Project Name: APACHE WEBDU #106
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 05/09/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S EXC OFF PAD N WALL (H100935-02)

BTEX 8021B			mg/kg		Analyzed By: CMS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/11/2011	ND	1.97	98.7	2.00	2.34	
Toluene*	<0.050	0.050	05/11/2011	ND	1.99	99.6	2.00	2.26	
Ethylbenzene*	<0.050	0.050	05/11/2011	ND	2.00	100	2.00	1.50	
Total Xylenes*	<0.150	0.150	05/11/2011	ND	5.98	99.6	6.00	1.71	

Surrogate: 4-Bromofluorobenzene (PIL) 90.8 % 70-130

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	05/11/2011	ND	416	104	400	0.00	

TPH 8015M			mg/kg		Analyzed By: AB				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/12/2011	ND	173	86.3	200	0.975	
DRO >C10-C28	111	10.0	05/12/2011	ND	198	98.9	200	0.901	

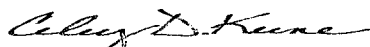
Surrogate: 1-Chlorooctane 108 % 70-130

Surrogate: 1-Chlorooctadecane 113 % 70-130

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received: 05/09/2011
Reported: 05/13/2011
Project Name: APACHE WEBDU #106
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 05/09/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S EXC OFF PAD E WALL (H100935-03)

BTEx 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/11/2011	ND	1.97	98.7	2.00	2.34	
Toluene*	<0.050	0.050	05/11/2011	ND	1.99	99.6	2.00	2.26	
Ethylbenzene*	<0.050	0.050	05/11/2011	ND	2.00	100	2.00	1.50	
Total Xylenes*	<0.150	0.150	05/11/2011	ND	5.98	99.6	6.00	1.71	

Surrogate: 4-Bromofluorobenzene (PIL) 95.0 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	05/11/2011	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/12/2011	ND	173	86.3	200	0.975	
DRO >C10-C28	15.9	10.0	05/12/2011	ND	198	98.9	200	0.901	


Surrogate: 1-Chlorooctane 122 % 70-130

Surrogate: 1-Chlorooctadecane 124 % 70-130

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received: 05/09/2011
Reported: 05/13/2011
Project Name: APACHE WEBDU #106
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 05/09/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S EXC OFF PAD W WALL (H100935-04)

BTEX 8021B			mg/kg		Analyzed By: CMS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/11/2011	ND	1.97	98.7	2.00	2.34	
Toluene*	<0.050	0.050	05/11/2011	ND	1.99	99.6	2.00	2.26	
Ethylbenzene*	<0.050	0.050	05/11/2011	ND	2.00	100	2.00	1.50	
Total Xylenes*	<0.150	0.150	05/11/2011	ND	5.98	99.6	6.00	1.71	

Surrogate: 4-Bromofluorobenzene (PIL) 93.3 % 70-130

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	05/11/2011	ND	416	104	400	0.00	

TPH 8015M			mg/kg		Analyzed By: AB				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/12/2011	ND	173	86.3	200	0.975	
DRO >C10-C28	13.4	10.0	05/12/2011	ND	198	98.9	200	0.901	

Surrogate: 1-Chlorooctane 124 % 70-130

Surrogate: 1-Chlorooctadecane 130 % 70-130

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received: 05/09/2011
Reported: 05/13/2011
Project Name: APACHE WEBDU #106
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 05/09/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S EXC OFF PAD BTM COMP (H100935-05)

BTX 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/11/2011	ND	1.97	98.7	2.00	2.34		
Toluene*	<0.050	0.050	05/11/2011	ND	1.99	99.6	2.00	2.26		
Ethylbenzene*	<0.050	0.050	05/11/2011	ND	2.00	100	2.00	1.50		
Total Xylenes*	<0.150	0.150	05/11/2011	ND	5.98	99.6	6.00	1.71		

Surrogate: 4-Bromofluorobenzene (PIL) 91.5 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	05/11/2011	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/12/2011	ND	173	86.3	200	0.975	
DRO >C10-C28	10.9	10.0	05/12/2011	ND	198	98.9	200	0.901	

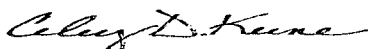
Surrogate: 1-Chlorooctane 106 % 70-130

Surrogate: 1-Chlorooctadecane 110 % 70-130

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

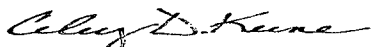
Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager



CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Apache Corp.		BILL TO		ANALYSIS REQUEST																							
Project Manager: Natalie Gladden		P.O. #:		<div style="display: flex; justify-content: space-around;"> <div>Chlorides</div> <div>TPH 8015 M</div> <div>BTEX</div> <div>Texas TPH</div> <div>Complete Cations/Anions</div> <div>TDS</div> </div>																							
Address: Apache Corp.		Company:																									
City: State: NM Zip:		Artn:																									
Phone #: Fax #:		Address:																									
Project #: Project Owner:		City:																									
Project Name: APACHE WEBDU #106		State: Zip:																									
Project Location:		Phone #:																									
Sampler Name: Jordan Woodfin		Fax #:																									
FOR LAB USE ONLY																											
Lab I.D.	Sample I.D.	IC/IRAB OR IC/OMP	# CONTAINERS	MATRIX					PRESERV			SAMPLING															
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME													
HID0435-1	South Excavation off the PAD South Wall	G	1			X					X		5-9-11	2:00	X	X	X										
2	South Excavation off the PAD North Wall	G	1			X					X		11	2:10	X	X	X										
3	South Excavation off the PAD East Wall	G	1			X					X		11	2:20	X	X	X										
4	South Excavation off the PAD West Wall	G	1			X					X		11	2:30	X	X	X										
5	South Excavation off the PAD Bottom Comp	C	1			X					X		11	2:50	X	X	X										

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising (whether based in contract or tort) shall be limited to the amount paid by the client for the analysis. All claims (including those for negligence and any other cause whatsoever) shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 5/9/11 Time: 16:05	Received By: Jodi Benson	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #:
Relinquished By:	Date:	Received By:	Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Fax #:
			REMARKS:
			email results zconder@rice-ecs.com; Lweinheimer@rice-ecs.com Hconder@riceswd.com; Bbaker@rice-ecs.com Natalie.Gladden@usa.apachecorp.com

Delivered By: (Circle One)	Sample Condition	CHECKED BY:
Sampler - UPS - Bus - Other:	Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

552

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#26



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

May 26, 2011

NATALIE GLADDEN

APACHE - EUNICE

P. O. BOX 1849

EUNICE, NM 88231

RE: WBDU #106

Enclosed are the results of analyses for samples received by the laboratory on 05/25/11 8:15.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received: 05/25/2011
Reported: 05/26/2011
Project Name: WBDU #106
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 05/13/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: 4 PT BTM COMP (H101068-01)

BTEX 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/25/2011	ND	2.16	108	2.00	1.64		
Toluene*	<0.050	0.050	05/25/2011	ND	2.10	105	2.00	1.47		
Ethylbenzene*	<0.050	0.050	05/25/2011	ND	2.15	107	2.00	1.46		
Total Xylenes*	<0.150	0.150	05/25/2011	ND	6.32	105	6.00	1.43		

Surrogate: 4-Bromofluorobenzene (PIE) 92.3 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	05/26/2011	ND	448	112	400	3.51		

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/26/2011	ND	241	120	200	3.97	
DRO >C10-C28	<10.0	10.0	05/26/2011	ND	213	107	200	0.169	


Surrogate: 1-Chlorooctane 96.5 % 70-130

Surrogate: 1-Chlorooctadecane 88.7 % 70-130

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/25/2011
 Reported: 05/26/2011
 Project Name: WBDU #106
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/13/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: E WALL EXC ON PAD (H101068-02)

BTEx 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/25/2011	ND	2.16	108	2.00	1.64		
Toluene*	<0.050	0.050	05/25/2011	ND	2.10	105	2.00	1.47		
Ethylbenzene*	<0.050	0.050	05/25/2011	ND	2.15	107	2.00	1.46		
Total Xylenes*	<0.150	0.150	05/25/2011	ND	6.32	105	6.00	1.43		

Surrogate: 4-Bromofluorobenzene (PIE) 91.5 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	05/26/2011	ND	448	112	400	3.51		

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/26/2011	ND	241	120	200	3.97	
DRO >C10-C28	<10.0	10.0	05/26/2011	ND	213	107	200	0.169	


Surrogate: 1-Chlorooctane 104 % 70-130

Surrogate: 1-Chlorooctadecane 90.3 % 70-130

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/25/2011
 Reported: 05/26/2011
 Project Name: WBDU #106
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/13/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: W WALL EXC ON PAD (H101068-03)

BTX 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/25/2011	ND	2.16	108	2.00	1.64	
Toluene*	0.057	0.050	05/25/2011	ND	2.10	105	2.00	1.47	
Ethylbenzene*	0.057	0.050	05/25/2011	ND	2.15	107	2.00	1.46	
Total Xylenes*	0.154	0.150	05/25/2011	ND	6.32	105	6.00	1.43	

Surrogate: 4-Bromofluorobenzene (PIL) 94.8 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	05/26/2011	ND	448	112	400	3.51		

TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/26/2011	ND	241	120	200	3.97		
DRO >C10-C28	<10.0	10.0	05/26/2011	ND	213	107	200	0.169		

Surrogate: 1-Chlorooctane 89.0 % 70-130

Surrogate: 1-Chlorooctadecane 77.4 % 70-130

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

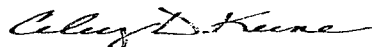
Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising wherever based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

Appendix D

Final Form C-141

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967